DOI: https://doi.org/10.22516/25007440.752

Original article

Characteristics of Inflammatory Bowel Disease Compared to Other National Centers in Colombia

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Citation:
García-Duperly R, López-Panqueva RP, Londoño-Schimmer EE, Rey-Rubiano M, Padrón-Mercado J, Medellín-Abueta A, Mejía-Arango M, Aguirre-Matallana DA, Ortiz-Pereira MJ, Páez-Cancelado CC, Park Noh JH, Vallejo-Madroñero RJ, Gómez-Aldana AJ, Mendoza de Molano B. Characteristics of Inflammatory Bowel Disease Compared to Other National Centers in Colombia. Rev Colomb Gastroenterol. 2022;37(1):48-57. https://doi.org/10.22516/25007440.752

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Received: 14/04/2021
Accepted: 28/05/2021

Abstract

Introduction: Inflammatory bowel disease (IBD) is an immune-mediated disease whose incidence in Latin America has increased in recent years. **Aim:** To analyze the demographic and clinical characteristics of patients with IBD treated in a university hospital and present the epidemiological data compared to other centers in Colombia. **Patients and methods:** Descriptive study of patients with IBD (1996-2019) at the Hospital Universitario Fundación Santa Fe de Bogotá. Analysis of data from centers in Medellín, Cali, Bogotá, and Cartagena. **Results:** Of 386 patients, 277 presented with ulcerative colitis (UC), 102 with Crohn's disease (CD), and seven with unclassifiable colitis. IBD was more frequent in women (53%). Mortality was less than 1%. The involvement of UC was mainly pancolitis (42.6%). The greater the extent of the disease, the higher the hospitalization and surgery rates (*OR* 3.70, $P < 0.01$). Thirteen percent of patients with UC received biologics. Compromise due to CD was mainly ileocolonic (43.6%) and ileal (43.6%). The predominant clinical pattern of CD was structuring (50%). Forty-five percent received biologicals and 56% surgery. Primary sclerosing cholangitis (PSC) was found in 4% of patients ($n = 15$). Two patients with PSC developed colorectal cancer (*OR* 4.18; p 0.008), while 13 patients with UC developed colon cancer and seven dysplastic changes. Three patients with CD developed colon cancer. **Conclusions:** The results were compared to other reference centers. We found similar trends in the clinical behavior and treatment of IBD, with higher hospitalization and surgery rates in our cases.

Keywords

Inflammatory bowel disease, Colombia, ulcerative colitis, Crohn's disease, phenotype.

INTRODUCTION

Inflammatory bowel disease (IBD), which includes ulcerative colitis (UC) and Crohn's disease (CD), is a cause of immune-mediated disease. They are characterized as chronic diseases with high morbidity, which can significantly impact the survival and quality of life of the patient and their family and entail a high cost for the health system[(1)].

Therefore, the efforts to establish an adequate diagnosis and appropriate treatment by improving patients' quality of life motivated the research on this pathology. Since its pathophysiology is multifactorial, including environmental, genetic, and immunological factors, it is crucial to know the behavior of the disease in different world populations[(1)].

IBD is most often diagnosed between 15 and 30 years of age; however, there is a second incidence peak between

50 and 70[2]. It is a disease with a higher prevalence in Caucasians and developed countries. Despite this, in the last two decades, epidemiological studies have shown a rapid increase in IBD incidence in countries in the Middle East, Asia, and South America[3]. Some studies show a decrease in IBD in North America[4], while IBD incidence has increased significantly in Latin America in the last 21 years[5].

The frequency of IBD has increased recently in Colombia. A study based on the Integrated Colombian Health Information System (SISPRO) for 2018 estimated the prevalence at 5.85 for CD and 51.77 for UC per 100,000 inhabitants[6].

This study intends to describe and discuss the demographic and clinical characteristics of patients with IBD whom the multidisciplinary group treated at the Hospital Universitario de la Fundación Santa Fe de Bogotá. As a secondary objective, we want to compare the experience reported by a medical center in Cartagena and some reference centers in Medellín, Cali, and Bogotá.

Studying the epidemiological behavior of IBD aims to delve into the association of the pathology with risk factors and its particular clinical characteristics, which is of paramount importance since risk factors may differ according to each population's culture, demographics, diet, health services, infrastructure, and socioeconomic status.

PATIENTS AND METHODS

We conducted a descriptive retrospective study by collecting information from the medical records of patients diagnosed with IBD at the Hospital Universitario de la Fundación Santa Fe de Bogotá (FSFB) between 1996 and 2019. IBD diagnostic criteria followed the guidelines of the ECCO evidence-based consensus and the American College of Gastroenterology (ACG)[7-9]. Data were tabulated according to diagnosis, demographics, and clinical data. According to the colonoscopy findings, severity and extension were determined under the Montreal classification[10].

We performed a descriptive statistical analysis and compared proportions with adequate confidence levels. Finally, a comparison was made with prevalence studies published in Colombia. The FSFB ethics committee approved the study protocol under registration CCES 8686-2017.

RESULTS

General characteristics of patients

Three hundred eighty-six patients who met the diagnostic criteria between 1996 and 2019 were included. Of these, 277 had a diagnosis of UC, 102 of CD, and seven of unclassifiable colitis (2%). A predominance of UC over CD was found, with a 2.7:1 ratio. The average age of diagnosis for UC was 42 years (range 7-91) and 47 years for CD (range 12-86), their difference being statistically significant (p 0.002). IBD was diagnosed more frequently in women than men; however, it was not statistically significant (p 0.44). The average follow-up of patients was 41.87 months for CD and 50 months for UC. UC hospitalization rate was 47% compared to 83.2% for CD.

Demographic characteristics, frequency of hospitalization, and mortality for each pathology are presented in **Table 1**.

Table 1. Demographic characteristics of patients with IBD at the Hospital Universitario Santa Fe de Bogotá, Colombia

Number of patients (n = 379)	Ulcerative colitis (n = 277)	Crohn's disease (n = 102)	Fisher's p	OR
Median diagnostic age (range): Years	42 (7-91)	47 (12-86)	0.02	-
Sex - Male - Female	 132 (47.7 %) 145 (52.3 %)	 41 (40.6 %) 60 (59.4 %)	0.244	1.33
Hospitalization	130 (47 %)	83 (82 %)	0.00	5.42
Mortality	2	1	ND	ND
Surgery	29	42		

NA: Not available.

Clinical features

Pancolitis was the most frequent manifestation of UC (n = 118; 46.8%). We found that 14.8% of the patients were in clinical remission, 21.64% with moderate disease, 28.73% mild, and 35.45% severe. In CD, the most frequent location of the disease was the ileum and the ileocecal junction, 44 patients in each segment (43.6%), respectively, while isolated colonic involvement was identified in 13 patients (12.9%) (**Table 2**). Twenty-three patients with CD (22.5%) had perianal and anal involvement, and no patient had upper digestive tract involvement above the ligament of Treitz. The most common phenotype of patients with CD was type B2 stenosing (49.5%), while type B1 and B3 were found in a lesser proportion (**Table 2**).

Hospitalizations and comorbidities

In our series, 213 (55%) patients were hospitalized; the majority had a diagnosis of CD (61%) when compared with patients with UC (OR = 0.18, CI 0.01-0.38, p 0.001). Of the 130 patients with UC admitted to the hospital,

62.39% had extensive involvement of the disease (*OR* = 3.28, *CI* 1.99-5.41, *p* 0.001). Patients with UC with rectal involvement (proctitis) had a hospitalization rate of 26.67% and 43.75% in patients with left-sided colitis. It was Of all the patients with CD, those who most frequently required hospitalization were patients with the stenosing B2 phenotype (20.4%), followed by the penetrating B3 phenotype (10.6%) and, less frequently, the non-stenosing and inflammatory B1 (8.3%).

Among the diseases associated with IBD, primary sclerosing cholangitis (PSC) was found in 14 patients (3.6%) of 386. Of these, eight were women, and six were men. Most had a diagnosis of UC (93.3%), 13 patients had severe extensive colitis, and one patient had severe left-sided colitis. One patient with PSC had a diagnosis of CD, with ileocolic extension and stenosing behavior.

The average age at the time of PSC diagnosis was 56.28 years. Of all patients with IBD who had PSC, two (14.3%) developed colorectal cancer. Compared to patients who did not have PSC, only 3.8% developed colorectal cancer. A positive association was obtained between PSC and colorectal cancer in patients with IBD, with an *OR* of 4.18 (*p* 0.008), which was statistically significant.

In the group of patients with UC, colon cancer was reported in 14 (4.3%), low-grade dysplasia in six (2.2%), and high-grade in one (0.4%); additionally, three patients with CD (2.9%) developed colon cancer.

Table 2. Extent, location, and behavior of IBD (Montreal classification)

	Ulcerative colitis (*n* = 277)	Crohn's disease (*n* = 102)
- E1: Ulcerative proctitis	99 (35.7 %)	NA
- E2: Left-sided colitis	60 (21.7 %)	NA
- E3: Extensive ulcerative colitis (pancolitis)	118 (42.6 %)	NA
CD location		
- L1: Ileal	NA	44 (43.6 %)
- L2: Colonic	NA	13 (12.9 %)
- L3: Ileocolonic	NA	44 (43.6 %)
- L4: Upper gastrointestinal	NA	0 (0 %)
CD behavior		
- B1: Nonpenetrating/inflammatory	NA	28 (27.7 %)
- B2: Stenosing	NA	50 (49.5 %)
- B3: Penetrating	NA	23 (22.8 %)
- Existence of perianal disease	NA	23 (22.8 %)

NA: Not applicable.

Medical treatment

In the group of patients with UC, 264 received treatment with 5-aminosalicylates (5-ASA) (94%), 163 with steroids (57%), 88 with azathioprine (30%), and 38 with biological therapy (13%). Initially, of the 38 patients with an indication to start biological treatment, 50% received adalimumab. Besides, 47% started treatment with infliximab and 3% with golimumab. Ten of the 38 patients (26%) required second-line treatment with vedolizumab, infliximab, and adalimumab. Later, one patient required third-line biologic therapy with golimumab.

In the group of patients with CD, 70 patients received medical management with 5-ASA (69.3%), 66 with steroids (65.3%), 48 with biological therapy (47.5%), and 39 with azathioprine (38.6%). Of the 48 patients who required management with biologics, adalimumab was most frequently used as first line (*n* = 32, 31.7%), followed by infliximab (*n* = 15, 14.9%) and vedolizumab (*n* = 1; 1%). Moreover, 23 patients required second-line biological treatment with adalimumab (*n* = 8, 7.9%), vedolizumab (*n* = 2, 2%), and ustekinumab (*n* = 1, 1%), and one patient received golimumab. Then, four patients required a third-line biologic with vedolizumab and one patient with certolizumab.

Surgical treatment of patients with UC

Regarding surgical treatment, 102 patients with inflammatory disease required surgical treatment. Of these, 45 had a diagnosis of UC (44.1%), and the main indication was resistance to medical management. Most of the operated UC patients had an extensive disease or pancolitis (*OR* 3.70, *CI* 1.83-7.50, $p < 0.01$).

UC with abdominal surgery in IBD (not liver transplant)

Of the 45 UC patients who underwent colectomy, 29 underwent surgery at the FSFB, 16 (55.2%) were women, and 13 (44.8%) were men. The most common procedure was abdominal proctocolectomy with ileoanal anastomosis (58.6%) (**Table 3**). The need for abdominoperineal resection in patients with ulcerative colitis is rare; however, it was necessary for two patients, one with rectal cancer and invasion of the sphincter complex and the other with severe anal stenosis. The average age at diagnosis was 42.24 years (deviation of 18.4 years), ranging between eight and 70 years. The average age of the patients who underwent abdominal surgery was 50.34 years (deviation of 16.79 years), ranging between 16 and 77 years. The average time between IBD diagnosis and abdominal surgery was 8.1 years (deviation of 8.47 years), ranging between one and 37 years.

Surgical treatment of patients with CD

In this case, 57 patients had a diagnosis of CD (55.9%); the main surgical indication was perianal complications. Of this group of patients, the majority had ileocolonic involvement (n = 31; 54%), 31.6% had ileal involvement (n = 18), and 14% had colonic involvement (n = 8). Fifty-six percent of operated CD patients had a stenosing phenotype (n = 32; *OR* 0.86; *CI* 0.86-1.88; *P* 0.290), 36.8% penetrating type (n = 21; *P* 0.011), and 7% inflammatory involvement (n = 4, *OR* 0.15, *CI* 0.05-0.39, $p < 0.001$).

CD with perianal treatment

Of the 57 patients with CD, 13 received surgical treatment for the perianal disease at the FSFB, the most frequent indication, of whom eight (61.5%) were men (**Table 3**). Of the patients operated at the FSFB with a perianal surgical procedure, the age at the time of diagnosis was 28.7 years (SD 13.7 years), ranging from 12 to 65 years. The average time between IBD diagnosis and the first perianal surgery was 4.5 years, ranging between one and nine years. Patients required 1.58 reinterventions (range zero to ten, maximum ten). At the surgery, 10/13 received biological therapy, 10/13 steroids, 9/13 5-ASA, and 5/13 azathioprine.

CD with abdominal surgery

Of the 57 CD patients who required surgery, 29 underwent abdominal surgery at the FSFB; 19 (65.5%) were women, and ten (34.5%) were men. The main indication for surgery was intestinal obstruction due to intestinal stenosis, secondary to CD (**Table 3**). At the time of diagnosis, the average age was 57.2 years (deviation of 18.1 years), ranging from 14 to 86 years. During the abdominal surgery, the average age was 61.4 years (deviation of 16.98 years), going between 14 and 86 years. The average number of years between IBD diagnosis and abdominal surgery was 4.24 years, ranging from zero to 31 years.

Table 3. Characteristics of patients with IBD who received surgical treatment at the Hospital Universitario Fundación Santa Fe de Bogotá

	Surgical indication, *n* (%)	Procedure, *n* (%)
UC (n = 29)	Resistance to medical treatment 17 (58.6%)	Abdominal proctocolectomy with ileoanal anastomosis 18 (62.1%)
	Colon cancer 4 (13.8%)	Subtotal colectomy with rectal preservation 7 (24.13%)
	Perforation or toxic colitis 6 (20.7%)	Segmental colectomy + Hartmann's operation 2 (6.9%)
	Rectal cancer/Anal stricture 1 (3.4%)/1 (3.4%)	Abdominopelvic resection 2 (6.9%)
CD perianal surgery (42)		
Perianal surgery (n = 13)	Perianal surgery: Fistula/Abscess 13 (100%)	Fistulectomy with seton placement 7 (53.8%)
		Abscess drainage 6 (46.1%)
Abdominal surgery (n = 29)	Obstruction/Stenosis 26 (89.6%)	Right ileocolectomy 14 (48.3%)
	Colorectal cancer 3 (6.7%)	Isolated right hemicolectomy 12 (37.9%)
		Left hemicolectomy 1 (3.4%)
	Rectovaginal fistula 1 (3.4%)	Abdominopelvic resection 2 (6.7%)

UC: Ulcerative colitis; CD: Crohn's disease.

Of the patients who received surgical management, three had colorectal cancer (one moderately differentiated rectal adenocarcinoma, one adenocarcinoma of the right colon, and one small intestine cancer), and one patient had a serrated adenoma of the cecal appendix. **Table 3** is a description of the surgeries at the FSFB.

Results compared to other national groups

Table 4 compares the characteristics of patients with IBD from the different reference centers in Colombia, in cities such as Medellín, Cali, and Bogotá[11-13]. The number of patients reported in the different studies varies between 165 and 649. Our institution has a number of patients similar to the other reference groups. The behavior and location of the disease are similar, with pancolitis being reported more frequently in Medellín and Bogotá (FSFB). The age of manifestation is similar, with an average of 40.7 years in the four studies. Of note is that we observed more hospitalizations and surgeries in our group.

In addition, we compared our data with an IBD prevalence study in Cartagena, Colombia[14]. This study found 26 patients with IBD out of 90,932 patients in the database in a review until 2006. The most frequent diagnosis in the Cartagena study population was UC ($n = 20$), as in the other reference centers in Colombia and the FSFB. IBD prevalence was higher in females, as noted in our institution[14].

DISCUSSION

Understanding the differences in IBD manifestation between the various geographical regions is vital due to the disease's burden on health systems and to devise the appropriate prevention and treatment strategies. The incidence and prevalence in developing countries are constantly increasing and have been attributed to the population's rapid Westernization[5]. Colombia is part of the Latin American countries with a significant increase in prevalence and incidence[6]. This study presents 386 patients treated for 23 years.

In our study, UC was diagnosed more frequently than CD, as reported in the other four national studies[11-14]. It was also found that the average age for diagnosis of UC and CD was 42 and 46 years, respectively, as informed by other reference centers in the country and international reviews[2,15,16].

In the present study, IBD was more frequent in women. As in other national studies, UC is predominantly female[12-14]. The same trend applies nationwide to CD,

Table 4. Characteristics of patients with IBD between reference centers in Colombia

	Hospital Pablo Tobón Uribe, Medellín (2001-2017)	Fundación Clínica Valle de Lili, Cali (2011-2015)	Fundación Clínica Colombia, Bogotá (2013-2016)	Hospital Universitario Fundación Santa Fe de Bogotá (1996-2019)
Number of patients	649	416	165	386
UC/CD	3/1	2.6/1	3.1/1	2.7/1
Mean age UC/CD (years)	39.9/41	42/43	39/44	42/46
UC extension (%) rectal/left/extensive	24/32/43	53/20/27	20/32/46	37/22/39
CD location (%) ileum/colon/ileocolonic	37/21/37	54/33/13	35/12/52	44/13/44
CD behavior (%) inflammatory/stenosing/ penetrating	37/21/19	49/20/29	60/32/2.5	28/50/23
UC surgery (%)	12	9	5	29
CD surgery (%)	39	46	27	42
CD hospitalization (%)	69	52	ND	83
UC hospitalization (%)	55	49	ND	47
Treatment - ASA/AZA/STE/BIO UC (%) - ASA/AZA/EST/BIO CD (%)	 94/41/55/21 37/57/66/46	 84/24/32/15 12/29/20/32	 82/23/70/16 30/35/35/35	 94/30/57/14 66/40/66/47

ASA: 5-aminosalicylates; AZA: Azathioprine; UC: Ulcerative colitis; CD: Crohn's disease; STE: Steroids; BIO: Biological therapy; NA: Not available.

except in Medellín, where a higher proportion of men was described[11]. The impact of gender on the course of IBD has been a controversial topic in international studies[17]. The female gender has been associated with a higher rate of long-term complications in ileoanal pouch anastomosis, such as pouchitis, intestinal obstruction, fistula, and pouch failure[18]. Future studies will analyze whether female patients have more long-term complications after surgical treatment.

In our series, a significant hospitalization rate was noted in patients with extensive UC or pancolitis. The extent of the disease was found to be a significant risk factor in patients with UC.

Some risk factors have been described that may determine the need for hospitalization in patients with UC. One study found that patients with extensive UC have a higher risk of hospitalization within the first 90 days of diagnosis (approximately 60%). The need to use corticosteroids early is a statistically significant predictive factor and translates into higher hospitalization rates. In contrast, gender, age at diagnosis, and time of disease evolution were not significantly associated with the first hospitalization of a patient with UC[19]. Another study found that the use of biological therapy and the elevation of C-reactive protein are predictive factors about the length of hospital stay, while the activity of the disease is more related to the number of outpatient consultations[20].

Similarly, patients with stenosing-type CD and perianal complications have higher hospitalization rates. These results are related to predictors described in other studies, including the presence of fistula, the use of biological therapy, and the severity of disease activity. Age, sex, use of steroids, and biological therapy are predictors of the number of outpatient visits[20].

Phenotypic characteristics were reported in our study, and we found that in CD, ileal and ileocolic extensions were the most frequent. Only 13% of the patients in this study had colon involvement, like the other center in Bogotá (12%)[13]. In other cities, such as Medellín and Cali, colon involvement was mostly reported[11,12]. More studies are needed that include the extension of the disease as a variant since it could be speculated that it may be related to cultural differences, habits, and diet between regions, including genetic characteristics and their microbiome in cities.

A systematic review that studied the phenotypic characteristics of UC and CD in South America and the Caribbean reported that ileocolonic extension (L3) was the most frequent in these regions[21]. This same study showed that the extent of the disease in UC varies between countries in Latin America. For example, no distal proctitis (Montreal E1classification) cases were detected in Brazil, but up to 55.35% were found in Puerto Rico. Left-sided colitis's involvement varies between 11.1% and 62.9% in Peru. Pancolitis (Montreal E3 classification) was found in 12% in Brazil and 77% in Argentina[21]. In the present study, there is a slight variation in the extension of UC in Colombia. The location near the rectum and the extensive involvement of the disease were more frequent than the involvement of the left colon, as published in other studies nationally[11-13].

There is a significant association between IBD and PSC. Globally, it is reported that 50-80% of patients with PSC simultaneously have IBD, pancolitis being more common in UC[21,22]. As an extraintestinal manifestation of IBD, PSC has been described as a disease with a particular PSC-IBD phenotype[23]. It is estimated that approximately 70% of patients with PSC have underlying IBD, most often UC. Five percent of patients with UC develop PSC during their disease[24].

Our results are consistent with these statistics: 4% of IBD patients developed PSC, of which two also had colorectal cancer. Specifically, we present a significant association between PSC and colorectal cancer in the present study, with an *OR* of 4.18. The combination of IBD and PSC significantly increases the risk of colorectal and hepatobiliary malignancy[25].

It has been established that chronic inflammatory changes predispose to changes in the mucosa, which can evolve and create a neoplasm[26]. The most significant risk occurs after the first ten years of the disease (0.5-1.5% per year) [15]. The PSC-IBD phenotype has been described as more inactive and asymptomatic; nonetheless, it is related to a more significant progression of low-grade dysplastic changes to advanced colorectal neoplasms[24,27]. Considering that many patients in Colombia with extensive UC are at risk of developing PSC, close clinical surveillance is vital, supported by radiological and endoscopic studies.

Colon cancer was significantly reported in our study. These results are relevant given that international studies have reported a prevalence of 3.7% of colorectal cancer in patients with UC[28]. Worldwide, a significant decrease in the incidence of colorectal cancer in patients with IBD has been reported, which is due to successful surveillance and screening programs and the better control of mucosal inflammation, that is, an adequate treatment[6]. The risk factors associated with colorectal cancer in this population include the time of evolution, the extent, severity of the disease, the presence of inflammatory pseudopolyps, coexisting PSC, and family history of colorectal cancer[29].

The main objective of IBD management is to obtain clinical remission and maintain it with the treatment that has the lowest risk of potential side effects[30].

New biological therapies have been developed for refractory or severe diseases, considering the high failure rate with conventional treatment[31]. Consequently, the use of biological therapy has increased in Colombia. Studies have shown

that up to 18.5% of patients with UC receive biological therapy, with infliximab and adalimumab being the first line[6].

Furthermore, 5-ASAs continue to be the mainstay of treatment in UC. We reported that 94% of patients with UC received this drug in our results. However, the use of biological therapy is increasing in our institution. Similar results were observed in the national studies above.

Surgical treatment in patients with CD has been reported in around 27.6% and 6.7% of patients with UC(6). Our study found a higher number of surgical events in patients diagnosed with CD than in patients with UC. When comparing these results with those of other reference centers, our institution had a higher number of surgical events, which can be explained by the severity of the disease, dysplastic lesions in the colon, and associated perianal complications.

Being refractory to medical treatment or adverse reactions was the main indication for surgical treatment in UC, requiring a proctocolectomy with ileoanal anastomosis and ileal J-pouch. We found that the association between surgical treatment and disease extension was statistically significant in our series. Thus, the more extensive the involvement, the higher the likelihood of requiring surgical treatment. The literature reported that 20% of patients with UC, and up to 80% of patients with CD, require surgery in the course of their disease. In patients with UC, proctocolectomy is the surgery of choice with a curative objective, while ileoanal anastomosis plus the construction of an ileal pouch replaced permanent ileostomy, which has improved patients' quality of life[32,33].

Surgeries in CD are not curative, and their objective is to treat the intestinal and perianal complications of the disease[33]. Severe complications of CD that require surgical treatment include obstruction, recurrent sub-obstructions, abdominal abscesses, perforation, bleeding, or cancer. The most common surgical procedure is ileocecal resection and primary reconstruction[33].

Strictureplasty is less frequently indicated in patients with proximal small bowel stricture[33]. In a minority of cases, endoscopic dilations of the jejunum and ileum and more limited resections are also performed. However, these last procedures frequently have endoscopic recurrence one year after resection in up to 80% of patients, clinical recurrence in up to 20% of patients at two years, and 80% at 20 years[33].

In our experience, the most frequent surgical indications in patients with CD were perianal complications (abscesses, anal fistulas, and anal stenosis). The transmural inflammatory process of CD predisposes to the formation of anal fistulae, and the literature reports a 17-85% risk of perianal complications[34]. Cohort studies have reported that 40-55% of CD patients older than ten years require surgery, and 28% will require a second intervention in the following ten years[34,35]. When comparing our data, we found that the average time between the diagnosis of CD and the first perianal surgery was 4.5 years. Patients with CD may have intestinal obstruction secondary to intestinal stenosis (single or multiple). The mechanisms whereby these strictures develop include secondary inflammation caused by the disease, the scarring process, and the remodeling of the intestinal wall, transforming it into an inert tissue that loses its elasticity and ability to contract and produces strictures[35]. In 28.4% of our patients with CD, it was necessary to perform an intestinal resection.

When presenting the phenotypic characteristics of IBD at the FSFB, compared to other reference centers in Colombia, we found similar results, mainly in the behavior and severity of the disease. The use of biological therapy has increased over the years. Also noteworthy is the increase in the number of surgeries in our institution, with the indication for surgery being that the patient is refractory to medical treatment and the complications of the disease. It is crucial to carry out more diverse population studies in Colombia in the future, identify the actual epidemiological profile of these pathologies in the country, and help plan health strategies with timely diagnoses.

LIMITATIONS

There is a selection bias in data collection because it is a retrospective study. The number of patients was lower than in the other reference centers when comparing the different follow-up times of the four groups. Considering this is a 23-year data collection study, IBD treatment has changed over time. Besides, we have pathological studies carried out outside the institution and verified by our specialists.

CONCLUSIONS

This retrospective study describes the characteristics of patients diagnosed with IBD who have been treated in the last two decades by a multidisciplinary group in a university hospital.

It should be noted that UC patients with extensive involvement of the disease have a higher incidence of associated complications, such as PSC and colorectal cancer. The stenosing behavior of CD was frequently found in our patients, as well as anal and perianal involvement, which required surgery. The results were compared to other reference centers. In comparing them, we identified the trends in clinical behavior and IBD treatment in the Colombian population.

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